

REMARKS

In view of the foregoing amendments and the following remarks, reconsideration and allowance are requested.

Claims 20-93 are now pending with claims 20, 49, 50, 71, 81 and 84 being independent. Claims 20, 31, 33, 36, 38, 39, 41-54, 56, 57, 59-67, 71, 72, 74-76, 78, 81, 82, 84-86, 88-90 and 92 have been amended, claims 70, 80, and 83 have been canceled, and claims 94-99 are newly presented for consideration.

Claims 20-93 stand rejected under the doctrine of obviousness-type double patenting for the reasons set forth at pages 2-3 of the office action. Although applicant disagrees with this rejection and its underlying rationale, applicant is willing to submit a terminal disclaimer to obviate the rejection. Accordingly, an executed terminal disclaimer will be filed in due course.

Claims 70, 80 and 82-83 stand rejected under 35 USC 112, first paragraph, for the reasons set forth at page 3 of the office action. Claims 70, 80 and 83 have been canceled, and claim 82 has been amended to depend from claim 81, thereby rendering this rejection moot. Nevertheless, it is noted that the Federal Circuit discredited "overbreadth" as a legitimate basis for rejecting claims long ago. Further, it is noted that In re Hyatt, dealt solely with claim elements drafted under 35 USC 112, sixth paragraph, and not, as the case here, with claims not falling within that statutory provision.

For the reasons set forth at pages 4-6 of the office action, the claims stand variously rejected under 35 USC 102 and 103 as being unpatentable over one or more of Sato (USP 5,453,758), Meredith (USP 5,542,672), O'Berrigan (USP 5,823,845), Eisenbrey (USP 5,516,105), Casio (JP 06-301474), and Rosenberg (USP 6,028,593). These rejections and their underlying rationale are traversed in their entirety.

As presented, independent claim 20 is directed to an electronic game apparatus comprising an output device having a gyrostat with at least one degree of freedom on at least one toppling axis. The claimed apparatus further recites a controller that selectively topples the gyrostat to provide a sensation to the user playing the electronic game. The art of record, regardless of how it is hypothetically combined, fails to disclose or suggest the combination of features recited in claim 20.

Sato is directed to an input apparatus and includes no disclosure or suggestion of an output device, such as recited in claim 20, having a gyrostat that can be selectively toppled to provide a sensation to a user playing an electronic game.

Meredith is directed to a fishing rod and reel electronic game controller having a motor 26 that rotates gyroscope axle 28 and gyroscope wheel 30 to simulate the pull of an actual fish. (See Meredith at col. 6, lines 19-31 and Fig. 2.) However, Meredith includes no disclosure or suggestion of an output device, such as recited in claim 20, having a gyrostat that can be selectively toppled to provide a sensation to a user playing an electronic game.

O'Berrigan is directed to a gyroscopically stabilized toy having a gyroscopic means mounted in the body of the toy so as to gyrostabilize the toy. (See O'Berrigan at col. 7, lines 19-46.) However, O'Berrigan includes no disclosure or suggestion of an output device, such as recited in claim 20, having a gyrostat that can be selectively toppled to provide a sensation to a user playing an electronic game.

Eisenbrey is directed to an acceleration-activated joystick 20 having an acceleration-activated switch 35, which is activated by the force of the mass 30 when accelerated by movement of the housing 22. (See Eisenbrey at col. 3, lines 48-54 and Fig. 3.) However, Eisenbrey includes no disclosure or suggestion of an output device, such as recited in claim 20, having a gyrostat that can be selectively toppled to provide a sensation to a user playing an electronic game.

Rosenberg is directed to providing simulated physical interactions within computer-generated environments. However, Rosenberg includes no disclosure or suggestion of an output device, such as recited in claim 20, having a gyrostat that can be selectively toppled to provide a sensation to a user playing an electronic game.

Casio is directed to a position-detecting device and includes no disclosure or suggestion of an output device, such as recited in claim 20, having a gyrostat that can be selectively toppled to provide a sensation to a user playing an electronic game.

These differences from the prior art provide the electronic game apparatus of claim with several advantages. For example, the torque that can be generated by toppling a gyrostat tends to be considerably larger than that which can be created using any of the techniques disclosed in the

art of record. As a result, a device made according to claim 20 can be made lighter, using less material, and can generate a torque disproportionate to its inertial size.

Accordingly, claim 20 is allowable over the art of record for at least the foregoing reasons. Each of the other independent claims - 49, 50, 71, 81 and 84 - has been amended to recite a gyrostat configured to be selectively toppled on a toppling axis to create an output sensation. Accordingly, each of the other independent claims is allowable at least for the same above-discussed reasons that claim 20 is allowable.

The remaining claims each depends directly or indirectly from one of the independent claims discussed above. Accordingly, these dependent claims are allowable for the reasons that their respective independent claims are allowable and for reciting allowable subject matter in their own right. Independent consideration and allowance of the dependent claims are requested.

The foregoing comments made with respect to positions taken by the Examiner are not to be construed as acquiescence by the applicant with other positions of the Examiner that have not been explicitly contested. Accordingly, applicant's arguments for patentability of a claim should not be construed as implying that there are not other good reasons for patentability of that claim or other claims.

Attached is a marked-up version of the changes being made by the current amendment.

A Change of Correspondence Address was previously filed in this application. If the change of address of the undersigned has not already been noted, please change the address to that shown below and send all correspondence to the new address.

Applicant : Thomas G. Woolst
Serial No. : 09/665,669
Filed : September 20, 2000
Page : 16

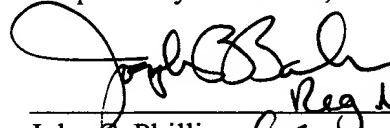
Attorney's Docket No.: 10064-006001

Applicant asks that all claims be allowed. Please apply any charges or credits to Deposit Account No. 06-1050.

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5/5/03

Respectfully submitted,



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Version with markings to show changes made

In the Title:

The Title has been amended as follows:

INTERACTIVE ELECTRONIC ~~SWORD~~ GAME HAVING GYROSCOPIC OUTPUT EFFECT

In the claims:

Claims 70, 80 and 83 have been cancelled.

Claims 94-99 have been added.

Claims 20, 31, 33, 36, 38, 39, 41-54, 56, 57, 59-67, 71, 72, 74-76, 78, 81, 82, 84-86, 88-90 and 92 have been amended as follows:

20. (Amended) An electronic game apparatus comprising:
a display for displaying information indicative of action in an electronic game;
an input device that receives input from a user playing the electronic game;
an output device having a ~~gyroscopic element~~ gyrostat with at least one degree of freedom on at least one toppling axis; and
a controller that controls action in the electronic game based at least in part on input received from the user and that ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide a sensation to the user playing the electronic game.

31. (Amended) The apparatus of claim 20 wherein the controller is programmable and wherein the apparatus further comprises software executed by the controller for controlling one or more of (i) the action in the electronic game, (ii) receiving input from the user, and (iii) ~~manipulating the gyroscopic element~~ causing the gyrostat to topple selectively on the at least one toppling axis to produce a tactile sensation on the output device.

33. (Amended) The apparatus of claim 32 wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide a sensation to the user playing the electronic game based at least in part on information determined by the sensor.

36. (Amended) The apparatus of claim 33 further comprising a safety device that prevents ~~manipulation~~ toppling of the ~~gyroscopic element~~ gyrostat when the user is disengaged.

38. (Amended) The apparatus of claim 20 further comprising at least one additional ~~gyroscopic element~~ gyrostat, the controller selectively and independently controlling the ~~gyroscopic elements~~ gyrostats to provide a sensation to the user playing the electronic game.

39. (Amended) The apparatus of claim 20 further comprising means for selectively hindering ~~manipulation~~ toppling of the ~~gyroscopic element~~ gyrostat as the user is applying input to the input device.

41. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the ~~gyroscopic element~~ gyrostat to provide tactile feedback to the user playing the electronic game.

42. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the ~~gyroscopic element~~ gyrostat to provide torque to the user playing the electronic game.

43. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the ~~gyroscopic element~~ gyrostat to provide sensations to the user that correspond to action in the electronic game.

44. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the ~~gyroscopic element~~ gyrostat to provide feedback to the user that motivates the user to conserve rotational energy of the ~~gyroscopic element~~ gyrostat.

45. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the gyroscopic element gyrostat to provide feedback to the user that urges the user to move the input device in a predetermined direction.

46. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the gyroscopic element gyrostat to provide feedback to the user that urges the user to move the input device in a direction toward a target area.

47. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the gyroscopic element gyrostat to provide a sensation to the user that resists a movement by the user of the input device.

48. (Amended) The apparatus of claim 20 wherein the controller ~~manipulates~~ selectively topples the gyroscopic element gyrostat to provide feedback to the user that urges the user to remain within a predetermined field of play.

49. (Amended) A network-based electronic game system comprising:
- (a) a plurality of electronic game components, each comprising:
 - (i) an input device that receives input from a user playing the electronic game;
 - (ii) an output device having a gyroscopic element gyrostat with at least one degree of freedom on at least one toppling axis; and
 - (iii) a controller for controlling action in the electronic game based at least in part on input received from the user and for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the user playing the electronic game; and
 - (b) a network for enabling communication among the plurality of electronic game components.

50. (Amended) An electronic game apparatus comprising:
a display for displaying information indicative of action in an electronic game;
a ~~gyroscopic element~~ gyrostat with at least one degree of freedom on at least one toppling axis; and
a controller that ~~manipulates the gyroscopic element~~ selectively topples the gyrostat in accordance with action in the electronic game.

51. (Amended) The apparatus of claim 50 wherein the controller is programmed to ~~manipulate the gyroscopic element~~ topple the gyrostat selectively to provide a sensation to the user playing the electronic game.

52. (Amended) The apparatus of claim 50 wherein the controller is programmed to ~~manipulate the gyroscopic element~~ topple the gyrostat selectively to generate a physical effect in one or more components of the electronic game apparatus.

53. (Amended) The apparatus of claim 50 wherein the ~~gyroscopic element~~ gyrostat is embodied in an output device.

54. (Amended) The apparatus of claim 53 wherein the controller ~~manipulates~~ selectively topples the ~~gyroscopic element~~ gyrostat to provide a sensation to a user playing the electronic game.

56. (Amended) The apparatus of claim 50 wherein the display is physically separate from at least one of the ~~gyroscopic element~~ gyrostat and the controller.

57. (Amended) The apparatus of claim ~~20~~ 50 wherein two or more of the display, the ~~gyroscopic element~~ gyrostat, and the controller are integrated into a common housing.

59. (Amended) The apparatus of claim 50 wherein the controller is programmable and wherein the apparatus further comprises software executed by the controller for controlling

one or more of (i) action in the electronic game, (ii) receiving input from a user, and (iii) ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat.

60. (Amended) The apparatus of claim 50 further comprising at least one additional ~~gyroscopic element~~ gyrostat, the controller selectively and independently controlling the ~~gyroscopic elements~~ gyrostats in accordance with action in the electronic game.

61. (Amended) The apparatus of claim 50 wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide tactile feedback to a user playing the electronic game.

62. (Amended) The apparatus of claim 50 wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide torque to a user playing the electronic game.

63. (Amended) The apparatus of claim 50 wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide feedback to a user that motivates the user to conserve rotational energy of the ~~gyroscopic element~~ gyrostat.

64. (Amended) The apparatus of claim 50 further comprising an input device and wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide feedback that urges the user to move the input device in a predetermined direction.

65. (Amended) The apparatus of claim 50 further comprising an input device and wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide feedback that urges a user to move the input device in a direction toward a target area.

66. (Amended) The apparatus of claim 50 further comprising an input device and wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to generate a physical effect that resists movement of the input device.

67. (Amended) The apparatus of claim 50 wherein the controller ~~manipulates the gyroscopic element~~ selectively topples the gyrostat to provide feedback that urges a user to remain within a predetermined field of play.

71. (Amended) ~~The method of claim 70~~ A method of controlling an electronic game, the method comprising selectively toppling a gyrostat on a toppling axis in at least one degree of freedom to provide a sensation to a player based on action in the electronic game, wherein ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprises providing tactile feedback to the player based on action in the electronic game.

72. (Amended) The method of claim ~~70~~ 71 wherein ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprises urging the player to move a game apparatus component in a predetermined direction.

74. (Amended) The method of claim 70 wherein ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprises resisting a movement by the player of a game apparatus component.

75. (Amended) The method of claim 70 wherein ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprises providing an incentive to the player to remain within a predetermined field of play.

76. (Amended) The method of claim 70 wherein ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprises providing an incentive to the player to conserve a rotational speed of the ~~gyroscopic element~~ gyrostat.

78. (Amended) The method of claim 77 wherein ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player is based at least in part on input received from the user.

81. (Amended) ~~The method of claim 80 wherein manipulating the gyroscopic element~~ A method of controlling an electronic game, the method comprising selectively toppling a gyrostat in at least one degree of freedom on a toppling axis, wherein selectively toppling the gyrostat to cause a physical effect based on action in the electronic game comprises imparting a force on one or more electronic game components.

82. (Amended) The method of claim ~~80~~ 81 wherein the physical effect is intended to be sensed by a human player of the electronic game.

84. (Amended) ~~The software of claim 83 wherein the instructions to manipulate a gyroscopic element~~ Software, embodied in a form understandable by a programmable controller, for causing the programmable controller to control an electronic game having a gyrostat with at least one degree of freedom on a toppling axis, the software comprising instructions to selectively topple the gyrostat to cause a physical effect based on action in the electronic game, wherein the instructions to selectively topple the gyrostat to cause a physical effect based on action in the electronic game comprise instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to a user playing the electronic game.

85. (Amended) The software of claim 84 wherein the instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in providing tactile feedback to the player based on action in the electronic game.

86. (Amended) The software of claim 84 wherein the instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player

comprise instructions that result in urging the player to move a game apparatus component in a predetermined direction.

88. (Amended) The software of claim 84 wherein the instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in resisting movement of a game apparatus component.

89. (Amended) The software of claim 84 wherein the instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in providing an incentive to the player to remain within a predetermined field of play.

90. (Amended) The software of claim 84 wherein the instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player comprise instructions that result in providing an incentive to the player to conserve a rotational speed of the ~~gyroscopic element~~ gyrostat.

92. (Amended) The software of claim 91 wherein the instructions for ~~manipulating the gyroscopic element~~ selectively toppling the gyrostat to provide a sensation to the player include instructions that consider at least in part input received from the user.